

Microbial Keratitis Complicating Penetrating Keratoplasty

C. Stephen Foster, MD

A retrospective review of 68 consecutive episodes of microbial keratitis complicating 66 penetrating keratoplasties (PKs) showed major risk associations: suture-related problems (50%), contact lens wear (26%), previous herpes simplex infection (15%), graft failure (15%), and persistent epithelial defects (15%). Topical steroid (85%) and antibiotic (59%) usage were common iatrogenic factors. Half the infections occurred more than 1 year after grafting. Bacterial infections involving gram-positive organisms (59%) predominated, except for patients with extended-wear hydrophilic contact lenses, which usually involved gram-negative bacilli. the incidence of fungal infections (6%) was relatively low.

Recommendations to minimize microbial keratitis include prompt attention to exposed, broken, or loose sutures, and preventative and therapeutic management of epithelial defects. The inadequacy of low-dose antibiotics in precluding microbial infection in many cases and the propensity to develop infections with resistant organisms suggest that guidelines for using postoperative and prophylactic topical antibiotics require reevaluation.